If the feeding hours are very irregular, death frequently follows with rapid loss in body weight. There is found a greatly dilated stomach or, less often, a subacute gastro-enteritis. (5) Occasionally, when the animals are fed regularly at long intervals, they die with atony of the stomach and rapid emaciation. (6) These observations may, perhaps, be correlated with the fact observed in man that the human stomach is frequently upset when the meals are taken at very irregular intervals.

The Diagnostic Value of Diastase in the Urine. — E. Marino (*Deut. Archiv f. klin. Med.*, 1911, ciii, 326) reports a quantitative study of urinary diastase in various diseases. He used the method of Wohlgemuth. The author finds (1) that the excretion of diastase in the urine is greatly lessened in nephritis and in diabetes mellitus. (3) In pancreatic disease the urinary diastase is increased in quantity. This, the author believes, is a very important sign of pancreatic disease. (3) As a functional test of the kidney, the quantitative estimation of diastase is valuable. (4) In pernicious anemia and in secondary anemia the diastase of the urine is markedly decreased. The diminution seems to be greater in pernicious than in secondary anemia, though the number of cases studied was too small to formulate a rule.

The Rate of Regeneration of Blood Platelets.—W. W. Duke (*Jour. Exper. Med.*, 1911, xiv, 265) has been able to render the blood of dogs practically free of platelets by withdrawing 200 to 300 c.c. of blood from the carotid artery, defibrinating it completely, and then reinjecting it intravenously. A repetition of this procedure six to ten times reduces the number of platelets to a minimum. He finds that animals thus deprived of the greater part of their fibrinogen and platelets display a marked tendency to bleed. After the practical removal of platelets from the blood, their regeneration is very rapid, amounting to about one-fifth of the normal number daily. From observations on human beings, Duke believes that the life cycle of the platelets is a matter of only a few days.

The Production, Life, and Death of Crescents in Malignant Tertian Malaria.—D. Thomson (*Annals Trop. Med. and Parasitol.*, 1911, v, 57) has studied the production, life, and death of crescents in treated and untreated cases of malignant tertian malaria by means of an enumerative method, the details of which are to be given in a forthcoming report. His results are summarized as follows: (1) Crescents are produced from the ordinary asexual spores of *P. falciparum*, due to a development of immunity toward the latter. (2) They develop somewhere in the internal organs and then appear suddenly in the peripheral blood. (3) The period required for their development is about ten days. (4) Crescents do not generally live more than a few days in the peripheral blood. (5) Crescents may be present in the peripheral blood during periods as long as eight weeks, not because the individual crescents survive for that time, but because their numbers are constantly replenished from surviving asexual forms. (6) Fresh broods of crescents come into the circulating blood daily, or every other day, or irregularly, according as the asexual sporulations occurring ten days before were quotidian, tertian, or irregular. (7) Quinine has no direct destructive action on crescents, either during their development or afterward, but it destroys the asexual source of supply. (8) Quinine reduced the crescents to numbers less than 1 per c.mm. of blood within three weeks, provided it be given in daily doses of 20 to 30 grains. (9) Quinine in small doses tends to increase the crescent production (?) by favoring the development of immunity to the asexual parasites. (10) Methylene blue in doses of 12 grains daily reduces the number of crescents, and would seem to have some direct destructive action upon them.

Antityphoid Vaccination in the Army.—J. R. Kean (*Jour. Amer. Med. Assoc.*, 1911, lvii, 713) reports the wonderful sanitary record of the Maneuver Division of the Army at San Antonio, and compares the statistics with those of one of the camps in 1898. The most important features of his report deals with typhoid fever prophylaxis by means of typhoid vaccine. Eight thousand and ninety-seven men were vaccinated. In no case was the operation followed by serious results, and in 90 per cent. of the cases the reaction was mild or absent. In the entire division there was only one case of typhoid fever. "This patient, a private in the hospital corps, had not completed his immunization, having taken only two doses. The case was very mild, and would perhaps have been overlooked but for the rule that blood cultures were made in all cases of fever of over forty-eight hours' duration." During the time covered by this report 49 cases of typhoid fever, with 19 deaths, were reported in the city of San Antonio. Compared with the typhoid morbidity and mortality at Jacksonville, Fla., in 1898, the results at San Antonio show the extent of the advance. In Jacksonville, among 10,759 men, there were 1729 certain cases of typhoid fever (including the probable cases of typhoid, there were 2693), of which 248 resulted fatally.

The Leukocytes in Malaria: A Method of Diagnosticating Malaria Long after it is Apparently Cured.—D. Thomson (*Annals Trop. Med. and Parasitol.*, 1911, v, 83) has made many daily observations of the total and relative leukocyte counts in malaria, extending over long periods of time and after the patients were apparently cured. His findings are remarkable and unique. They are accompanied by numerous charts. The summary, in Thomson's own words, follows: (1) During active malaria the number of leukocytes in the peripheral blood is decreased. During quiescent malaria, and in cases apparently cured by treatment, the leukocytes in the peripheral blood are much increased. (2) During the rigor and temperature in malaria the mononuclear leukocyte percentage (more especially that of the large mononucleated variety) is low. With the fall in temperature, however, the mononuclear percentage rises very high, sometimes even to 90 per cent. of the total leukocytes. This fluctuation in the percentage of total mononuclear leukocytes occurs also long after continuous quinine treatment, and is observed for months and even years (?) after the last attack of fever. (3) In these apparently cured cases of malaria the mononuclear percentage is lowest at the time of the day at which the rigor and fever occurred during the previous active malaria; and, moreover, at this time there also occurs a very marked leukocytosis, which continues only for a few hours. The leukocytes reach numbers as great as 30,000 to 50,000 per c.mm. of blood. On one occasion they were as numerous as 125,000 per c.mm. Two hours later they had fallen to 22,000 per c.mm., and in eight more hours they were only 6000 per c.mm. This case showed a regular daily periodic variation in the number of leukocytes, averaging from about 6000 per c.mm. to 50,000 per c.mm. The height of the rise always occurred about noon. This was the time at which the rigor and fever, which was quotidian, were wont to occur previously. This postmalarial leukocyte phenomenon occurred always without exception in the 40 cases examined, and would therefore seem to be an infallible sign of previous malaria, as, so far, it has not been observed in any other disease. (4) It would appear that large numbers of malarial parasites on sporulating cause a leukopenia, while a very small number on sporulating cause a leukocytosis.

Albumin and Albumose in the Sputum.—E. H. GOODMAN (*Archir. Int. Med.*, 1911, viii, 163) has studied the albumin and albumose content of the sputum in a number of pulmonary diseases, and finds that the presence of albumin is of less diagnostic value than is attributed to it by certain observers. While albumin is usually present in the sputum in pulmonary tuberculosis and absent in simple bronchitis, exceptions are so frequent as to destroy the value of the test to a great extent. In fact, Goodman met with albumin frequently in nontuberculous cases. He finds in most cases that the albumin is associated with a positive test for occult blood which probably explains the source of the albumin.

SURGERY

UNDER THE CHARGE OF

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Experimental and Clinical Investigations Concerning the Effect of Fibrolysins on Cicatricial Tissue.—SIDORENKO (*Deutsch. Ztschr. f. Chir.*, 1911, cx, 89) says that in the last five or six years contributions have frequently been made concerning the favorable action of thiosinamin and its derivatives. Sidorenko made investigations to determine the value of thiosinamin-fibrolysin therapy. Clinically the fibrolysin was employed in a series of suitable cases. In the laboratory the effects of the fibrolysins were investigated upon cicatricial tissue, the blood, and the lymph taken from the thoracic duct. The experiments